

REMARKS

The Office Action mailed September 27, 2007 has been carefully considered. Within the Office Action Claims 82-92 and 102-104 have been rejected. Reconsideration in view of the following remarks is respectfully requested.

Information Disclosure Statement

The Applicants' prior counsel had previously filed Information Disclosure Statements (IDS) with the USPTO with the cited non-published documents on compact disc. Applicants' current counsel have provided copies of the non-considered references in paper form and apologizes for the inconvenience. Thus, the Applicants hereby request acknowledgement of the provided references.

The 35 U.S.C. § 112, Second Paragraph Rejection

Claims 82-92 and 102-104 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the inventive subject matter. This rejection is respectfully traversed.

Under M.P.E.P. 2173.02, in reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a

particular subject matter with a reasonable degree of clarity and particularity.

Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) The content of the particular application disclosure;
- (B) The teachings of the prior art; and
- (C) The claim interpretation that would be given by one possessing the ordinary

level of skill in the pertinent art at the time the invention was made.

In determining definiteness, the examiner should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement. M.P.E.P. 2173.02.

In Applicant's specification, it is more than clear to one skilled in the art what the metes and bounds are of "flexibly coupled" as recited in claims 82 and 90. Applicants' specification states that in an embodiment:

[t]he multiple members of the gimbal mechanism are formed as a closed-loop linkage. The linkage can include four members that are flexibly coupled to each other as segments of the unitary member. The four members include first and second extension members and first and second flexible central members, where the central members are each coupled to an extension member and to each other at the user object.

(Specification, Page 5, Lines 23-26.)

In addition, Applicants' specification states,

Gimbal mechanism 202 preferably includes a multi-segment flexure that is rotatably coupled to a ground member 208. Gimbal mechanism 202 includes a ground member 208, extension members 210a and 210b, and central members 212a and 212b. Ground member 208, shown schematically, is coupled to grounded surface 206 which provides stability for apparatus 200. Ground member 208 is shown in FIG. 12 as two separate symbols coupled together through grounded surface 206, but ground member 208 can be considered to be one "member" that is grounded. An example of a ground member 208 including members 60 and 62 is shown above in FIG. 3. It should be noted that members 210a, 210b, 212a, and 212b are referred to herein as "members" due to the similarity of the rotatably-coupled members described with reference to FIG. 2. However, these "members" of gimbal 202 can be considered "segments" of a "multi-segment flexure" or a "unitary member," that is rotatably coupled to ground member 208.

The central members 212a and 212b are flexible members having a torsion flex (twist) and bending compliance so that the object 44 can be moved in two or three degrees of freedom about axes A, B, and C, as explained below. Axes A and B are fixed in position with respect to the ground surface 206 (i.e., grounded) and are substantially mutually perpendicular. As described above with reference to FIG. 2, floating axes C, D and E are not fixed in one position as are axes A and B. Floating axes D and E are coincident with axes B and A, respectively, when the user object 44 is in a central position as shown in FIG. 12. Floating axis C preferably extends approximately through the point of intersection P of axes A and B.

(Specification, Page 29, Line 27-Page 30, Line 17). It should be noted that the specification goes on to further describe the central members being configured to be flexible. Further, the specification describes an embodiment:

A major difference of the present embodiment from the embodiment of FIG. 2 is that members 210a, 210b, 212a and 212b can be provided as a "unitary member," where these four members are formed and produced coupled together as segments of a single part or "flexure." Gimbal mechanism 202 can thus also be considered a closed loop two member linkage, where one member is a complex unitary member (including these four segments) and the other member is ground member 208 that is rotatably coupled to the unitary member.

Since the members 210a, 210b, 212a, and 212b are formed as a unitary part, bearings or joints between these members do not need to be separately manufactured and the extensive assembly process for these members is not necessary. In contrast, the embodiment of FIG. 2 requires joints between equivalent members to these four members to be produced and for these joints and members to be assembled and fastened together. In consequence, the gimbal mechanism 202 is significantly less expensive to produce than the mechanism 25 of FIG. 2. This allows the mechanical apparatus 200 to be manufactured and provided to the high-volume consumer market while still providing an accurate and realistic force feedback interface to the user. In other embodiments, some of the members 210a, 210b, 212a, and 212b can be formed together as unitary members and some members can be formed separately. For example, extension member 210a and central member 212a can be formed together as segments of one unitary member, while extension member 210b and central member 212b can be formed together as segments of a second unitary member. Alternatively, central members 212a and 212b can be formed together as a unitary member (with or without object member 216 formed between them).

(Specification, Pages 32, Lines 14-33). Applicants provide the above passages to exemplify that the specification provides more than adequate support to one skilled in the art what the what the metes and bounds are of “flexibly coupled.” It should however be noted that the metes and bounds are not limited to just the above states passages as the specification goes on to explain in more detail the embodiments which possess flexibly coupled members. For at least these reasons, the rejection is improper and withdrawal is respectfully requested.

Judicially-created Double Patenting

Claims 82-92 and 102-104 were rejected pursuant to the judicially-created doctrine of obviousness-type double patenting as being unpatentable over claims of prior

United States patent Nos. 5,721,566; 5,805,140; 6,486,872; 6,639,581; 6,697,048; and 7,193,607. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

It is believed that this reply places the above-identified patent application into condition for allowance. Early favorable consideration of this reply is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

Respectfully submitted,
THELEN REID BROWN RAYSMAN & STEINER LLP

Dated:

12/12/07



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